REMARKS

In view of the above amendments and following remarks, reconsideration of the rejections that are contained within the Office Action of May 14, 2008 is respectfully requested.

Rejections Based on Prior Art

Claim 12 has now been further amended so as to recite a lubricating oil discharge hole at a lower end of the separation chamber below the point at which the communication passage and the feed hole open into the interior space. For the reasons as previously noted, and as emphasized by this limitation, claim 12 clearly distinguishes over Kayukawa in view of Hisanaga as applied by the Examiner.

In the present invention, as discussed on pages 7-9 of the specification, a communication passage 57 is provided for communicating between oil-storage chamber 52 and separation chamber 51. Like the feed hole 53, the communication passage 57 is provided eccentrically from the central axis of the separation chamber 51. Thus fluid introduced into separation chamber 51 through the communication passage 57 is guided in a tangential direction with respect to the circular columnar space 49. That is, the fluid flows into the separation chamber 51 along the inner circumference of the circular columnar space 49. Thus, the fluid that flows from oil-storage chamber 52 into separation chamber 51 through the communication passage 57 smoothly converges with the refrigerent gas fluid that is being revolved in the separation chamber. Thus, the disturbance of the revolving refrigerant gas fluid can be suppressed.

In operation, the communication passage 57 functions as a gas vent hole for fluid such as refrigerant gas that may gather in the upper part of the oil-storage chamber 52. Accordingly, the oil level of the lubricating oil that is in the oil-storage chamber 52 can be pushed up smoothly. Because of the presence of the communication passage 57, blow-back from oil discharge hole 54, positioned at the lower end of the separation chamber, due to pulsation of refrigerant gas can be suppressed. This helps to suppress the scattering of oil that collects on the lower part of the separation chamber 51 because of such blow-back.

Claim 12 now further requires the lubricating oil discharge hole at the lower end of the separation chamber, below the point at which the communication passage and the feed hole open into the interior space. Kayukawa has no such discharge hole.

In rejecting claim 12 over this combination of references, the Examiner initially noted that Kayukawa does not teach an oil-storage chamber or a communication passage between such an oil-storage chamber and the interior space of the separation chamber. In fact, what Kayukawa does is send the pressurized refrigerant through passage 18a into separation chamber 49. The lighter gas is discharged through central passage 51. The separated oil in separation chamber 49 is drawn to crank chamber 15 through the supply passage 31 so that the oil is delivered between pistons 22 and shoes 23, and between shoes 23 and the swash plate 20. Note the discussion in the first complete paragraph in column 6 of Kayukawa. Passage 31 clearly is not "below" the communication passage, as such is not present in Kayukawa, as noted by the Examiner, and is not even below the feed hole 18 as interpreted by the examiner, but is at the same level.

Hisanaga is directed to a scroll type compressor having an oil-separating chamber 121 formed as a columnar cavity. Refrigerant flows therein through an entrance passage 122. An oil outlet passage 123 permits delivery of the oil component from the oil-separating chamber 121 into oil-storing chamber 130.

The Examiner cited the oil outlet passage 123 as the communication passage required by claim 12. However, the passage 123 is the actual main outlet hole that is used for channeling oil all of the time, and would correspond to the recited oil discharge hole of claim 12. There is in fact no communication passage as in the present invention.

Further, even if the communication passage of claim 12 is compared to passage 123 of Hisanaga, claim 12 requires that the oil discharge hole be below where the communication passage opens in the interior space. But the passage 123 is the lowest point of the chamber. There would be no reason from either reference to arrive at a discharge hole below the communication passage as required. Thus, the further limitation to claim 12 simply serves to emphasize the differing nature of the invention from both Kayukawa and Hisanaga; neither reference addresses the possibility of blowback through the oil discharge hole from the oil

storage chamber by providing a communication passage above the oil discharge hole that communicates with the oil storage chamber.

The distinction can be readily seen from the fact that in the present invention there are four holes or passages communicating with the separation chamber: exhaust hole 58, feed hole 53, communication passage 57 and lubricating oil discharge hole 54. This includes two holes or passages between the separation chamber 51 and oil storage chamber 52, i.e. passage 57 and discharge hole 54. In the reference to Kayukawa, there are three holes or passages, 18, 31 and 51. In the reference to Hisanaga, there are three openings from separation chamber 121, passages 120, 122 and 123; passage 123 is the only passage between the oil storage chamber 130 and separation chamber 121. Thus neither reference teaches the structure including the four holes or passages as claimed and neither reference addresses the reasons for the additional hole or passage.

New claim 17 also distinguishes over the references by reciting that the feed hole is positioned eccentrically from a central axis of the interior space so that the fluid introduced into the interior space through the feed hole is guided in a tangential direction of the interior space, and that

the communication passage opens in the tangential direction of the interior space so that any fluid flowing into the interior space, via the communication passage, from the upper part of the oil-storage chamber is introduced to flow in the same tangential direction as the fluid introduced into the interior space through the feed hole so that it does not disturb revolution of the fluid in the interior space

While in Hisanaga, the communication passage 123 is tangential to the chamber 121, as can be seen from Figs. 15 and 16, for example, it is arranged in a manner so that if any fluid were flowing from the oil chamber 130 back to the chamber 121, it would be against the revolution of the fluid; this can be clearly seen from Fig. 15. Thus, claim 17 clearly defines over the cited references, even if the flow of fluid in the references would not disturb the revolution of the fluid.

Conclusion

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance, and the Examiner is requested to pass the case to issue. If the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact Applicants' undersigned representative.

Respectfully submitted,

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